

MONTGOMERY -- 09/991,527
Client/Matter: 042503-0259666

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of providing for digital data storage of a stream of image data and pattern recognition of at least one external pattern and an initially compressed external pattern on the stream of image data comprising the steps of:

compressing a stream of digital image data using at least a first thread to obtain an initially compressed stream of digital image data and performing pattern recognition using the at least one external pattern and at least a second thread to attempt to ~~contain~~ recognize matches, the first and second threads being ~~processed~~ processed using a processing system;

transmitting the initially compressed stream of digital image data to another processing system; and

further compressing the initially compressed stream of digital image data using at least a third thread to obtain a further compressed stream of digital image data and performing pattern recognition of the at least one external pattern using at least a fourth thread and an the initially compressed external pattern ~~corresponding to the external pattern~~ to attempt to ~~contain~~ recognize matches, the third and fourth threads being processed using the another processing system.

2. (New) The method according to claim 1 wherein the step of compressing and performing pattern recognition performs pattern recognition on the stream of digital image data using an uncompressed external pattern.

3. (New) The method according to claim 2 wherein the uncompressed external pattern used in the step of compressing contains at least 25 reference points.

4. (New) The method according to claim 1 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with the initially compressed external pattern, which initially compressed external pattern corresponds to the at least one external pattern used in the step of compressing.

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5. (New) The method according to claim 1 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with the initially compressed external pattern, which initially compressed external pattern which does not correspond to the at least one external pattern used in the step of compressing.
6. (New) The method according to claim 1 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with a plurality of initially compressed external patterns.
7. (New) The method according to claim 1 wherein the step of compressing and performing pattern recognition operate on real-time images that form the stream of digital image data.
8. (New) The method according to claim 7 wherein the step of compressing and performing pattern recognition performs pattern recognition on the stream of digital image data using an uncompressed external pattern.
9. (New) The method according to claim 8 wherein the uncompressed external pattern used in the step of compressing contains at least 25 reference points.
10. (New) The method according to claim 7 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with the initially compressed external pattern, which initially compressed external pattern corresponds to the at least one external pattern used in the step of compressing.
11. (New) The method according to claim 7 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with the initially compressed external pattern, which initially compressed external pattern does not correspond to the at least one external pattern used in the step of compressing.

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12. (New) The method according to claim 7 wherein the step of further compressing and performing pattern recognition performs pattern recognition on the initially compressed stream of digital image data with a plurality of initially compressed external patterns.

13. (New) The method according to claim 7 wherein:
the step of compressing and performing pattern recognition performs pattern recognition on the stream of digital image data with a plurality of external patterns.

14. (New) The method according to claim 13 wherein the step of compressing and performing pattern recognition further includes the step of providing a notification to the another processing system if the step of performing pattern recognition for all the plurality of external patterns was not completed; and

wherein the step of further compressing and performing pattern recognition, upon receipt of the notification, performs pattern recognition on the initially compressed stream of digital image data with the plurality of external patterns.

15. (New) The method according to claim 14 wherein the step compressing and performing pattern recognition is performed by a plurality of different processing systems, each processing system operating upon a different stream of image data, to obtain a plurality of streams of initially compressed image data.

16. (New) The method according to claim 15 wherein the step of further compressing and performing operates upon each of the plurality of streams of initially compressed image data.

17. (New) The method according to claim 16 wherein the step of further compressing and performing further compresses each of the plurality of streams of initially compressed image data.

18. (New) The method according to claim 16 wherein the step of further compressing and performing performs pattern recognition on each of the plurality of streams of initially compressed image data using the initially compressed external pattern.

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19. (New) The method according to claim 15 wherein the step of compressing and performing pattern recognition performs, for each different processing system, pattern recognition on a corresponding one different stream of image data, using uncompressed external patterns.

20. (New) The method according to claim 19 wherein each uncompressed external pattern used in the step of compressing contains at least 25 reference points.

21. (New) The method according to claim 15 wherein the step of further compressing and performing pattern recognition performs pattern recognition on each of the plurality of streams of initially compressed image data with the initially compressed external patterns, which initially compressed external patterns each corresponds to one of the external patterns used in the step of compressing.

22. (New) The method according to claim 15 wherein the step of further compressing and performing pattern recognition performs pattern recognition on each of the plurality of streams of initially compressed image data with the initially compressed external patterns, which initially compressed external patterns do not correspond to the external patterns used in the step of compressing.

23. (New) The method according to claim 1 wherein the step of compressing and pattern recognition is performed on a single processor that operates on multiple processor threads.

24. (New) The method according to claim 23 wherein the step of further compressing and pattern recognition is performed on a single processor that operates on multiple processor threads.

25. (New) The method according to claim 1 further including the step of storing the further compressed stream of digital image data.